

MSC Guidelines for Review of Vessel Structural Fire Protection

Procedure Number: H2-19

Revision Date: 05/05/00

References

- a. Navigation and Vessel Inspection Circular (NVIC) 9-97 "Guide to Structural Fire Protection"
- b. Navigation and Vessel Inspection Circular (NVIC) 8-93 "Equivalent Alternatives to 46 CFR Subchapter H Requirements Related to Means of Escape, Safe Refuge Areas, and Main Vertical Zone Length"
- c. Commandant (G-MTH) ltr of March 24, 1994 w/ enclosure, "Alternative Guidelines for the Application of Navigation and Vessel Inspection Circular 8-93 (NVIC 8-93) to Certain Vessels"
- d. Commandant (G-MTH-4) Policy File Memorandum (PFM) 1-94, "Policy File Memorandum on Structural Fire Protection Requirements for Low Fire Load Spaces on Certain Vessels"
- e. SOLAS Consolidated Edition, 1997; Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978: articles, annexes and certificates
- f. SNAME Technical & Research Bulletin 2-21, "Aluminum Fire Protection Guidelines"

Disclaimer

These guidelines were developed by the Marine Safety Center staff as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy guidance. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Transportation expressly disclaim liability resulting from the use of this document.

Contact Information

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General Administrative Guidance

Determine the vessel type and the applicable regulatory subchapter and any chosen/applicable policies (e.g. refs (b), (c), (d)).

Review the applicability section of any policy to ensure the vessel meets the criteria for application of the policy.

Determine if the vessel will be certified for international voyages and if so review Chapter II-2 of reference (e) and section 1.6 of reference (a).

Determine if the vessel will be constructed of steel, aluminum, or combustible materials.

For aluminum construction, review Chapter 4 of reference (a) and reference (f).

For combustible construction, review Chapter 5 of reference (a) and determine the extent of combustible construction. For full combustible construction refer to an established standard such as the High Speed Craft Code.

General Review Guidance

Determine the compartment classifications that will be used to apply fire boundary requirements. For Subchapter K, Subchapter H, SOLAS and the HSC Code there are tables in each regulation and definitions to clarify the space designations. For Subchapters I, R and U there may not be tables but space types and areas where fire boundaries are required will be specified.

Check all space classifications against the requirements/definitions. Check also for spaces not separated by fire boundaries.

Check all bulkheads/deck classifications against the regulations.

Check for the presence of draft stops.

Check the ventilation plans for compliance with the regulations.

Check the insulation and penetration details against the guidance of reference (a), reference (f), or against specifications accompanying supporting fire tests and/or type approvals.

Check the installation methods for the insulation, the joiner work construction, and any penetrations.

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Look for the presence of spaces in which the furniture or furnishings are restricted in a tradeoff for lesser structural fire protection (e.g. type 5A space). In such cases, ensure that appropriate fire restricted furnishings are being used.

Check the materials for the proper approvals. The requirements for approved materials vary greatly and are found in the applicable regulations.

- ❑ If materials are required to be “approved” then verify that type approval numbers are provided for each material.
- ❑ If non-type approved materials are used then submit the fire test certificates and accompanying reports which show compliance with the applicable fire test criteria from the regulations.